

## **REMARKS**

The Applicant requests that the above Amendment be entered and the application examined as amended, and in view of the remarks below.

By this Amendment, no amendments were made to the pending claims and new claims 62-70 were introduced. Support for new claims 62-70 is provided on pages 16 and 17 of the as-filed specification. The addition of “new matter” has been scrupulously avoided.

Claims 1-70 are now pending in this application.

The Applicant would like to recognize with appreciation the assistance Examiner Boosalis provided during a phone interview with the Applicant’s undersigned Agent on June 15, 2007.

### **1. Response to Anticipation Rejection based upon Everest**

In paragraphs 3-5 on page 2 of the Office Action, the Patent Office rejected claims 36, 37, 40-43, and 57 under 35 USC 102(b) as anticipated by U.S. Patent 4,494,881 of Everest, et al. (herein “Everest”). However, the Applicant respectfully submits that these rejections are inappropriate and requests that they be reconsidered and withdrawn.

The Applicant’s undersigned Agent typically refers to the MPEP for guidance when considering whether an anticipation rejection is appropriate. As noted in the earlier Response filed on March 28, 2006, MPEP § 2131 defines the conditions under which an anticipation rejection is appropriate. (This citation is not repeated here for the sake of brevity.) Specifically, the Applicant submits that Everest does not include “each and every element” of the invention recited in these claims, nor does Everest show the invention “in as complete detail” as these claims, as the MPEP guidelines require.

With respect to claim 36, as discussed in the above-reference phone interview, the Applicant submits that Everest does not anticipate the invention recited in claim 36. The Applicant respectfully requests that this rejection be reconsidered and withdrawn.

With respect to the rejections of dependent claims 37, 40-43, and 57, the Applicant submits that these claims are not anticipated by Everest for the same reasons that claim 36, from which they depend, is not anticipated. The Applicant respectfully request that these rejections also be reconsidered and withdrawn.

In addition, new claims 62-66, dependent upon claim 36, as discussed in the above-referenced phone interview further distinguish from Everest.

## **2. Response to Anticipation Rejection based upon McKinley**

In paragraph 6 on page 3 of the Office Action, the Patent Office rejected claims 51 and 58 under 35 U.S.C. 102(b) as anticipated by EP 867,699 of McKinley, et al. (herein "McKinley"). However, the Applicant respectfully submits that this rejection is inappropriate and requests that it be reconsidered and withdrawn.

The Applicant submits that McKinley is the EP patent corresponding to US Patent 5,368,392 of Hollander, et al., which is also of record in this case.

With respect to claim 51, as discussed in the above-reference phone interview, the Applicant submits that McKinley does not anticipate the invention recited in claim 51. The Applicant respectfully requests that this rejection be reconsidered and withdrawn.

With respect to the rejections of dependent claim 58, the Applicant submits that this claim is not anticipated by McKinley for the same reasons that claim 51, from which it depends, is not anticipated. The Applicant respectfully requests that this rejection also be reconsidered and withdrawn.

In addition, new claims 67 and 68, dependent upon claim 51, as discussed in the above-referenced phone interview further distinguish from McKinley.

## **3. Response to Obviousness Rejection based upon Everest and Carrieri**

In paragraphs 7 and 9 on pages 3 and 4 of the Office Action, the Patent Office rejected claims 1, 2, 3, 4, 6, 45, and 53 under 35 U.S.C. 103(a) as obvious in view of Everest and U.S.

Patent 6,060,710 of Carrieri, et al. (herein "Carrieri"). However, the Applicant respectfully submits that these rejections are inappropriate and requests that they be reconsidered and withdrawn.

In response to the recent Supreme Court decision in *KSR v. Teleflex, Inc.*, the Applicant understands that some guidance when considering an obviousness rejection under 35 U.S.C. 103 was provided in a memorandum to Technology Center Directors from Margaret A. Focarino, Deputy Commissioner for Patent Operations, captioned "Supreme Court decision on *KSR Int'l. Co., v. Teleflex, Inc.*," dated May 3, 2007. In this memorandum, Ms. Focarino first underscores the continued significance of the *Graham* inquiries, that is,

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating evidence of secondary consideration.

Moreover, among other things, Ms. Focarino advises:

(4) The court noted that the analysis supporting a rejection under 35 U.S.C. § 103(a) should be made explicit, and that it was important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed." The Court specifically stated:

Often, it will be necessary...to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit**.

*KSR*, slip op. at 14 (emphasis provided by Ms. Focarino)

**Therefore, in formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed.** (Emphasis provided by Ms. Focarino.)

The Applicant submits that Ms. Focarino's advisories are particularly applicable to the present rejections under §103(a). In particular, the Applicant submits that there is no "apparent reason" to combine the teachings of the cited references. Furthermore, the Patent Office has not

provided any “explicit” reasons for combining the teachings of the references, as promulgated by the Supreme Court’s instructions.

With regards to the present rejection of claims 1 and 45 as obvious in view of Everest and Carrieri, first, even if appropriate to combine their teachings, the claimed invention does not ensure. As discussed in the above-referenced phone interview, Carrieri does not disclose the controlling of the direction of light beams as claimed. In the cited passage 6:13-14, Carrieri discloses “piezoceramic actuators” that “control beam modulation.” However, there is no suggestion in Carrieri of what this “beam modulation” comprises or what “beams” are modulated. There is certainly no disclosure or suggestion in Carrieri that this modulation somehow includes “controlling a direction” of a light beam as claimed.

Second, the Applicant submits that there is no “apparent reason” to combine the modulating piezoceramic actuators of Carrieri with the infrared thermometer of Everest. For example, since the light beam 70 and its refracted beam 66 of Carrieri are stationary beams that are intended to pass through the “identical lens system” through which the IR beam 64 passes, there is no apparent reason to “modulate” or in any way vary the direction of light beam 66 in Everest. Since there is no “apparent reason” to combine the teachings of these references, these rejections of claims 1 and 45 are inappropriate. The Applicant respectfully requests that these rejections be reconsidered and withdrawn.

With respect to the rejections of dependent claim 2-4, 6, and 53, the Applicant submits that these claims are not obvious in view of Everest and Carrieri for the same reasons that claim 1, from which they depend, is not obvious. The Applicant respectfully requests that these rejections also be reconsidered and withdrawn.

In addition, aspects of the dependent claims are not disclosed or suggested by the cited art. For example, the 103(a) rejection of claims 3, 4, and 53 in view of Everest, Carrieri, and U.S. Patent 5,841,138 of Prekel (herein “Prekel”) that appears in paragraph 9 on pages 4 and 5 of the Action are also inappropriate.

First, Prekel fails to provide the teachings that are missing from Everest and Carrieri; for

this reason alone, these rejections are inappropriate.

Second, as noted in the earlier response, as described by its title and abstract, Prekel discloses a method and apparatus for “non-destructive workpiece testing.” As such, Prekel has nothing whatsoever to teach Everest, which lies in the art of IR radiometers, or Carrieri, which lies in the art of chemical and biological identification. Section 2141.01(a) of the MPEP provides the following guidelines concerning what can be considered analogous art when making a rejection pursuant to 35 U.S.C. §103(a):

The examiner must determine what is “analogous prior art” for the purpose of analyzing the obviousness of the subject matter at issue. “In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F. 2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) (“A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor’s endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem.”); and *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F. 2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993). [Emphasis added.]

The Applicant submits that not only is Prekel a different field, but the art of Prekel -- non-destructive testing -- would not commend itself to an inventor’s attention considering the art of the present invention -- IR radiometry.

As discussed in its Background section, contrary to aspects of the present invention, Prekel discloses a device for *generating* temperature on a surface.

Nondestructive and contact-free testing of material by means of thermal excitation of surfaces, applying intensity modulated radiation and evaluating the course in time of the heat radiation emitted by the surface, is a process which has proved successful for some years. The underlying principle, also known as photothermal radiometry (PTR), is based on the generation of temperature waves in a specimen to be tested, such waves spreading in a manner which is characteristic of the condition of the material of the specimen and being diffused or reflected at thermal inhomogeneities, such as layer boundaries, delaminations, fissures, pores, etc., in a way similar to ultrasonic waves. [1:20-32, Emphasis added.]

In contrast, aspects of the present invention are intended to detect the temperature of the surface being examined, such that any temperature generation *would interfere* with that desired intent. Again, the Applicant submits that the combination of the teachings of Everest, Carrieri, and Prekel is inappropriate.

Even if proceeding *arguendo* with the supposition that the teachings of Everest, Carrieri, and Prekel can be combined, which they cannot, the claimed inventions recited in claim 3 does not ensue. Contrary to the claimed invention, mirror 22 of Prekel does not “divid[e] the light beam...into a plurality of beams” as claimed. As clearly stated in Prekel, in the very lines cited by the Patent Office,

At its periphery, the mirror 22 is formed with recesses or cuts, and it is either rotated continually or moved back and forth in oscillating motions between two defined angular positions. The excitation beam S hitting the mirror [22] surface is transmitted, if it happens to meet a recess, or it is deflected by reflection, all depending on the position of the mirror. In a preferred embodiment the mirror is round and segments are cut out of its circumference at regular intervals. [4: 14-22, Emphases added.]

That is, contrary to the present inventions recited in claim 3, the mirror 22 of Prekel simply “transmits” or “reflects” beam S and does not provide a “a plurality of beams” as claimed. The Applicant submits that even if combining the teachings of Everest, Carrieri, and Prekel is inappropriate, the inventions claim 3 is not provided. The Applicant respectfully requests that these rejections be reconsidered and withdrawn.

With respect to the rejections of dependent claims 4 and 53, the Applicant submits that these claims are not obvious in view of Everest, Carrieri, and Prekel for the same reasons that claim 3, from which they depend, is not obvious. The Applicant respectfully request that these rejections also be reconsidered and withdrawn.

#### **4. Response to Obviousness Rejection based upon Everest, Carrieri, and McKinley**

In paragraph 10 on page 6 of the Office Action, the Patent Office rejected claims 7-11 and 59 under 35 USC 103(a) as obvious in view of Everest, Carrieri, and McKinley. However,

the Applicant respectfully submits that these rejections are inappropriate and requests that they be reconsidered and withdrawn.

Again, since claims 7-11 and 59 are dependent upon claim 1, claims 7-11 and 59 are patentable for the same reasons that claim 1 is patentable, as discussed above. Moreover, since McKinley does not provide the teachings missing from Everest and Carrieri, the Applicant submits that the inventions recited in claims 7-11 and 59 are not obvious in view of Everest, Carrieri, and McKinley. The Applicant respectfully submits that these rejections be reconsidered and withdrawn.

**5. Response to Obviousness Rejection based upon Everest, Carrieri, and Brandli**

In paragraphs 11 -13 and on pages 6 3-10 of the Office Action, the Patent Office rejected claims 12, 13, 14, 16, 17, 18, and 46 under 35 U.S.C. 103(a) as obvious in view of Everest, Carrieri, and U.S. Patent 3,924,469 of Brandli (herein "Brandli"). However, the Applicant respectfully submits that these rejections are inappropriate and requests that they be reconsidered and withdrawn.

With respect to claims 12 and 46, the Applicant submits that Brandli does not provide the teachings missing from Everest and Carrieri discussed above. Based upon this reason alone, these rejections are inappropriate.

Second, as discussed during the above-referenced phone interview, Brandli does not project any radiation to the surface being measured 4 - the passage in Brandli cited by the Patent Office Examiner discusses a geometric projection only, not the projection of radiation of any kind. In the third line of page 7 of the Office Action, the Patent Office appears to assert that Brandli teaches "the projection of the ellipse" to support an argument that Brandli somehow projects a light beam on to the surface being measured. The Applicant respectfully submits that this is a totally erroneous interpretation of Brandli, which close examination of Brandli will reveal.

In column 3, lines 41-46, Brandli states:

The preferred configuration of the plate-like reflective member 2 is elliptical with the major axis of the ellipse projected onto the plane of the drawing. The projection of the ellipse to the surface of object 4 to be measured is approximately circular, like the projection onto any plane at a right angle thereto. (3:41-46, Emphasis added.)

However, contrary to the comments made by the Patent Office, the recited “projection” is simply a geometric construct, introduced to characterize the shape of the surface exposed to the elliptical “reflective member 2.” As described in Brandli, radiation from surface 4 is reflected to conduit 6 and to detector 5. Contrary to the invention recited in claims 12 and 46, no radiation of any kind is directed toward surface 4.

Moreover, as also confirmed during the phone interview, the Applicant submits that the “heating” coil 7 of Brandli is unrelated to the claimed positioning coil and magnet.

The Applicant respectfully requests that these rejections of claims 12 and 46 as obvious in view of Everest, Carrieri, and Brandli be reconsidered and withdrawn.

With respect to the rejections of dependent claims 13, 14, and 16-18, the Applicant submits that these claims are not obvious in view of Everest, Carrieri, and Brandli for the same reasons that claim 12, from which they depend, is not obvious. The Applicant respectfully request that these rejections also be reconsidered and withdrawn.

## **6. Response to Obviousness Rejection based upon Everest and Prekel**

In paragraph 14 on pages 10 and 11 of the Office Action, the Patent Office rejected claims 28, 29, 48 and 60 under 35 USC 103(a) as obvious in view of Everest and Prekel. However, the Applicant respectfully submits that these rejections are inappropriate and requests that they be reconsidered and withdrawn.



With respect to claims 28 and 48, neither Everest, nor Prekel provide “a plurality of reflected light beams” marking the surface. As discussed above in subsection 3, the mirror 22 of Prekel simply “transmits” or “reflects” beam S and does not provide a “a plurality of light beams” as claimed. The Applicant submits that even if combining the teachings of Everest and Prekel is inappropriate, the inventions claims 28 and 38 are not provided. The Applicant respectfully requests that these rejections be reconsidered and withdrawn.

With respect to the rejections of dependent claims 29 and 60, the Applicant submits that these claims are not obvious in view of Everest and Prekel for the same reasons that claim 28, from which they depend, is not obvious. The Applicant respectfully request that these rejections also be reconsidered and withdrawn.

#### **7. Response to Obviousness Rejection based upon Everest and Hollander**

In paragraph 15 on page 11 of the Office Action, the Patent Office rejected claims 38 and 39 under 35 USC 103(a) as obvious in view of Everest and U.S. Patent 5,368,392 of Hollander, et al. [herein “Hollander”]. . However, the Applicant respectfully submits that these rejections are inappropriate and requests that they be reconsidered and withdrawn.

Since claims 38 and 39 are dependent upon claim 36, claims 38 and 39 are patentable for the same reasons that claim 36 is patentable, as discussed above in subsection 1. Moreover, since Hollander does not provide the teachings missing from Everest, the Applicant submits that the invention recited in claims 38 and 39 is not obvious in view of Everest and Hollander. The Applicant respectfully submits that these rejections be reconsidered and withdrawn.

#### **8. Allowable Subject Matter**

In paragraph 16 on page 12 of the Office Action, the Patent Office deemed claims 21-27, 30-35, 44, 47, 49, 50, and 52 allowed. The Applicant acknowledges with appreciation the allowance of these claims.

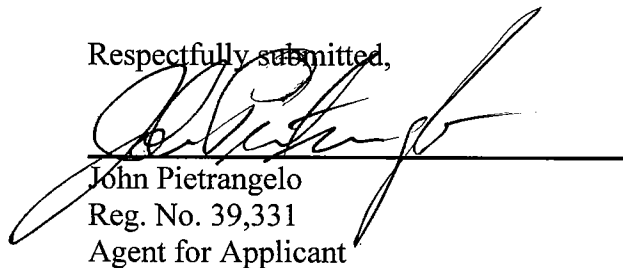
In paragraphs 17-19 on page 12 of the Office Action, the Patent Office deemed claims 5, 15, 61 are allowable if rewritten in independent form. The Applicant acknowledges with appreciation the recognition of the allowability of these claims, but as described above, the Applicant believes that the Applicant is entitled to broader protection than is provided by these claims.

## **9. Conclusion**

The Applicant believes that the above Amendment and Remarks overcome the rejections of the subject Office Action and places the application in condition for allowance. An early and favorable action on the merits of the application is requested.

If a telephone conference would be of assistance in advancing prosecution of the subject application, the Applicant's undersigned Agent invites the Examiner to telephone him at the number provided.

Respectfully submitted,



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